

ABSTRACT OF THE DISCLOSURE

A glass-forming mold comprising an intermediate layer 2 and a platinum layer 3 is provided. The intermediate layer 2 of thickness $3\text{ }\mu\text{m}$ which is formed from an alloy comprising 40 wt% of platinum and 60 wt% of iridium is provided over the surface of a mold substrate 1. This substrate is formed from a cemented carbide material having tungsten carbide as principal constituent. The platinum layer 3 of thickness $0.05\text{ }\mu\text{m}$ is furthermore provided over the intermediate layer 2. By applying the above process, a surface roughness within the range $0.01\text{ }\mu\text{m}$ to $0.05\text{ }\mu\text{m}$ is provided to the mold substrate and a surface roughness within the range $0.2\text{ }\mu\text{m}$ to $1.2\text{ }\mu\text{m}$ is provided to the platinum layer 3 which corresponds to the surface S1 of the most external layer. The surface roughness of the platinum may be achieved by using sputtering to deposit a platinum film and thereafter promoting platinum grain growth by heat treatment at 500°C for 1 hr in a nitrogen atmosphere.